



Code: 6674

Family: Construction, Maintenance, and Skilled Labor

Service: Operation and Construction

Group: Industrial Trades

Series: Metal Working Trades

CLASS TITLE: MACHINIST

CHARACTERISTICS OF THE CLASS

Under supervision, performs journey-level machinist work in the manufacturing, repair, and rebuilding of precision metal parts for the maintenance of mechanical equipment and machinery, and performs related duties as required

ESSENTIAL DUTIES

- Reviews blueprints, specifications, or models of parts to be made and determines work procedures, metal stock, and machine tools to use to fabricate parts
- Inspects and dismantles mechanical equipment and machinery to identify malfunctions and determine needed repairs
- Fabricates metal parts by setting up and operating conventional or computer-controlled machine tools (e.g., lathes, milling machines, grinders, drill presses)
- Plans and lays out jobs, making calculations to establish dimensions, locating and marking surfaces and angles to be machined, setting controls, and making cuts to perform machining operations
- Performs precision handwork to finish, fit, and assemble machined parts using bench mounted and hand held power tools (e.g., files, die grinders, buffers, scrapers)
- Uses precision measuring instruments (e.g., vernier calipers, micrometers, surface gauges, dial indicators) to maintain dimensional accuracy and specified tolerances during machining operations
- Determines and monitors the feed and speed of the machine during machining operations
- Checks finished metal products to ensure they meet specifications
- Installs and tests new and repaired parts, ensuring proper fit and operation
- Prepares work activity reports
- Loads, transports, and unloads equipment and supplies as required
- Cleans work sites after repairs
- Cleans and lubricates machinery, tools, and equipment
- Welds or brazes broken parts with electric or gas equipment, as required
- Cuts steel with acetylene torch, as required

NOTE: *The list of essential duties is not intended to be inclusive; there may be other duties that are essential to particular positions within the class.*

MINIMUM QUALIFICATIONS

Education, Training, and Experience

- Successful completion of a US Department of Labor registered machinist apprenticeship training program and journeyman status; or an equivalent combination of education, training, and experience

Licensure, Certification, or Other Qualifications

- None

WORKING CONDITIONS

- Exposure to loud noise, fumes or dust, oily or wet environment
- Exposure to hazardous conditions (e.g., heavy machinery)

EQUIPMENT

- Hand and power tools (e.g. wrench, pliers die grinders, buffers)
- Standard tools and equipment of the machinist trade (e.g., machine tools, precision instruments, micrometers, dial indicators)
- Personal protective equipment (e.g., hard hat, shoes, glasses, gloves, vest, pads)

PHYSICAL REQUIREMENTS

- Heavy lifting (up to 75 pounds) is required
- Ability to stand and walk for extended or continuous periods of time
- Ability to quickly bend, stretch, twist, or reach out with one's body, arms, and/or legs
- Ability to operate applicable hand tools, power tools, and equipment

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

Knowledge

Moderate knowledge of:

- *equipment, materials, and machine tools specific to the machinist trade
- *repair, maintenance, and preventative maintenance methods, practices, and procedures applicable to the machinist trade
- *use of safety equipment and protective gear
- *applicable safety and code standards specific to the machinist trade, including OSHA standards

Some knowledge of:

- programming and electronics used in the operation of computer-controlled tools

Knowledge of applicable City and department policies, procedures, rules, regulations, and ordinances

Skills

- *ACTIVE LISTENING - Give full attention to what other people are saying, take time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times
- *MATHEMATICS - Use mathematics to solve problems
- EQUIPMENT MAINTENANCE - Perform routine maintenance on equipment and determine when and what kind of maintenance is needed
- EQUIPMENT SELECTION - Determine the kind of tools and equipment needed to do a job
- OPERATION AND CONTROL - Control operations of equipment or systems

- INSTALLATION - Install equipment, machines, wiring, or programs to meet specifications
- REPAIRING - Repair machines or systems using the needed tools

Abilities

- COMPREHEND ORAL INFORMATION - Listen to and understand information and ideas presented through spoken words and sentences
- SPEAK - Communicate information and ideas in speaking so others will understand
- COMPREHEND WRITTEN INFORMATION - Read and understand information and ideas presented in writing
- RECOGNIZE PROBLEMS - Tell when something is wrong or is likely to go wrong
- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense
- VISUALIZE - Imagine how something will look after it is moved around or when its parts are moved or rearranged

Other Work Requirements

- INITIATIVE - Demonstrate willingness to take on job challenges
- STAMINA - Demonstrate energy and stamina to accomplish work tasks
- DEPENDABILITY - Demonstrate reliability, responsibility, and dependability and fulfill obligations
- ATTENTION TO DETAIL - Pay careful attention to detail and thoroughness in completing work tasks

All employees of the City of Chicago must demonstrate commitment to and compliance with applicable state and federal laws, and City ordinances and rules; the City's Ethics standards; and other City policies and procedures.

The City of Chicago will consider equivalent foreign degrees, accreditations, and credentials in evaluating qualifications.

* May be required at entry.

City of Chicago
Department of Human Resources
(Valtera Corporation)

Date: August, 2010